CLAIMS

1. An oligopeptide represented by Formula (I) shown below:

A_1-Leu-Asp-Gln-A_2-$(X)_n$ (I)

where A_1 represents a hydrophobic amino acid residue having a side chain with a cyclic group; A_2 represents a hydrophobic amino acid residue having an aliphatic hydrocarbon group or an aromatic hydrocarbon group; n is zero or one; and X represents an amino acid residue.
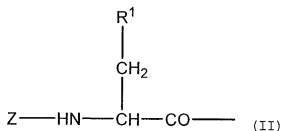
2. A linearly-linked peptide formed by linking two or more oligopeptides represented by Formula (I) as a repeating unit via a spacer, if necessary.

3. An oligopeptide complex formed by using a linker to the C-terminal of the oligopeptide according to Claim 1.

4. An oligopeptide according to Claim 1, wherein A_1 is represented by Formula (II) shown below:

$$
\begin{array}{c}
R^1 \\
| \\
CH_2 \\
| \\
Z\text{---}HN\text{---}CH\text{---}CO\text{---} \quad (II)
\end{array}
$$

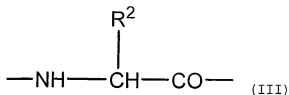where R^1 represents a cyclic group; and Z represents a hydrogen atom, an alkyl group or an acyl group.

5. An oligopeptide according to Claim 1, wherein A_1 is phenylalanine, 1-naphthylalanine, or cyclohexylalanine.

6. An oligopeptide according to Claim 1, wherein A_2 is

represented by Formula (III) shown below:

$$-NH-CH-CO- \quad \text{(III)}$$

with R^2 above the CH carbon.

where R^2 is an alkyl or aryl group.

    7. An oligopeptide according to Claim 1, wherein A_2 is valine, norvaline, leucine, or phenylglycine.

    8. An oligopeptide according to Claim 1, comprising Phe-Leu-Asp-Gln-Ile.

    9. An oligopeptide according to Claim 1, comprising Phe-Leu-Asp-Gln-Val.

    10. An oligopeptide according to Claim 1, comprising Phe-Leu-Asp-Gln-Phg, where Phg represents a phenylglycine residue.

    11. Use of the oligopeptide, linearly-linked peptide and oligopeptide complex according to any one of Claims 1 to 10 for detecting or quantifying dioxin.

    12. A peptide immobilizing support formed by linking the oligopeptide, linearly-linked peptide and oligopeptide complex according to any one of Claims 1 to 10 to a support.

    13. A peptide immobilizing support according to Claim 12, wherein the support is a bead.

    14. A method of detecting or quantifying dioxin comprising the steps of:

    (1) bringing the peptide immobilizing support according

to Claim 12 into contact with a labeled dummy and a test sample
which may contain dioxin; and

(2) detecting or quantifying dioxin based on the amount
of the labeled dummy bound to the support which is determined in
Step (1).

15. A method according to Claim 14, wherein the
labeled dummy is NBD-labeled 3,4-dichlorophenol.

16. A method of extracting dioxin comprising the steps
of:

(1) bringing the peptide immobilizing support according
to Claim 12 into contact with a test sample containing dioxin to
bind the dioxin to the support; and

(2) separating the dioxin bound to the support obtained
in Step (1) using a solvent.